

Title (en)
SEMICONDUCTOR DEVICE

Title (de)
HALBLEITERBAUELEMENT

Title (fr)
DISPOSITIF À SEMI-CONDUCTEURS

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Abstract (en)
The semiconductor device of the present invention includes a semiconductor layer which includes an active portion and a gate finger portion, an MIS transistor which is formed at the active portion and includes a gate trench as well as a source region, a channel region and a drain region sequentially along a side surface of the gate trench, a plurality of first gate finger trenches arranged by an extended portion of the gate trench at the gate finger portion, a gate electrode embedded each in the gate trench and the first gate finger trench, a second conductive-type first bottom-portion impurity region formed at least at a bottom portion of the first gate finger trench, a gate finger which crosses the plurality of first gate finger trenches and is electrically connected to the gate electrode, and a second conductive-type electric field relaxation region which is formed more deeply than the bottom portion of the first gate finger trench between the mutually adjacent first gate finger trenches.

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